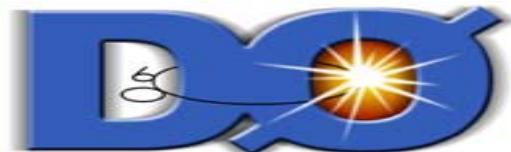


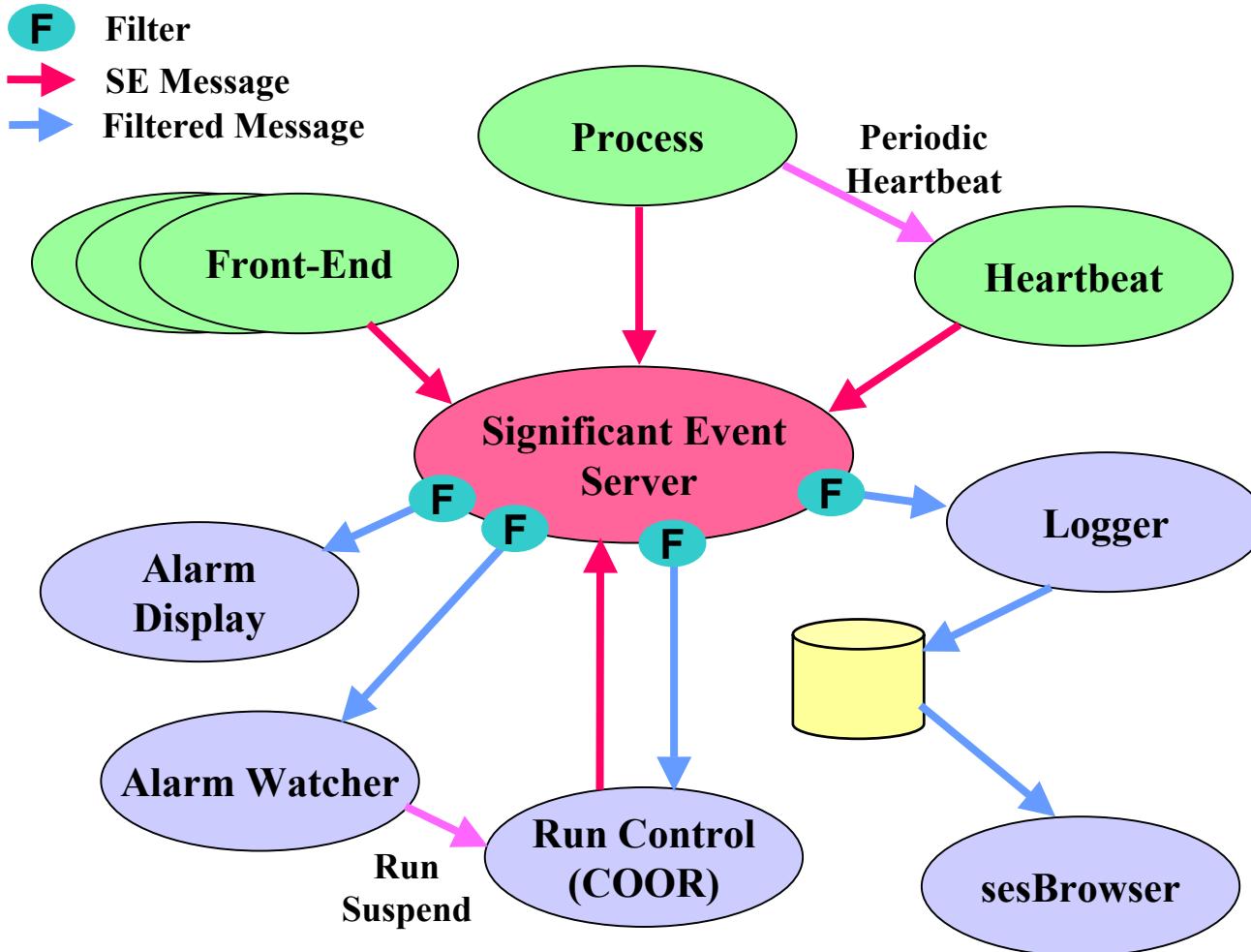


SES Alarm Log Browser

**J. Frederick Bartlett
Vladimir Sirotenko**



Significant Event System



Invoking the sesBrowser

- **Command line**
 - ◆ `sesBrowser.py <filter-file> <start-time> <end-time>`
- **Time format**
 - ◆ `yyyy-mm-dd hh:mm:ss`
 - ◆ **Example:** ‘**2003-05-18 12:00:00**’
 - ◆ **End time defaults to last message in today’s log file**
- **Output is to terminal**
 - ◆ **For output file add ‘>filename’ to command line**



Filter Definition

- A filter definition file consists of a series of addFilter statements

```
addFilter(id=<title-text>, filter=<filter-text>, action=<action-text>)
```

- Arguments – all quoted strings
 - ◆ title text – filter title for printing
 - ◆ filter text- Python boolean expression
 - ◆ action text:
 - print() – print filtered alarm messages
 - stat() – print count by device name
 - hist() – display histogram of count vs. time



Python Boolean Expression

- Variable names
 - ◆ Device name (string)
 - Name – example: `(name == "MUO_PDT_023/P5V")`
 - ◆ Device name components (string)
 - `<det>_<devtype>_<loc>/<attr>`
 - det – detector name – example: `(det == "MUO")`
 - devtype – device type – example: `(devtype != "PDT")`
 - loc – locator – example: `(loc == "023")`
 - attr – attribute – example: `(attr != "P5V")`
 - ◆ Priority – message priority (numeric)
 - priority – example: `(priority > 100)`



Boolean Expression

- Boolean term names
 - ◆ Severity – message severity
 - severity – example: (`severity == "major"`)
 - Major severity – “major”
 - Minor severity – “minor”
 - Invalid severity – “invalid”
- Boolean expression example:
 - ◆ `(dev == "MUO") and (devtype == "HVC") and (priority > 100)`
- Warning
 - ◆ Quoted strings within quoted strings must use different quote characters



“stat()” Action Example

- Filter for muon example
 - ◆ File name: /online/config/muo/muo.bro

```
addFilter(id='HV', filter='contains(det,"MUO") and ((devtype=="HVC") or (devtype=="HVU")) and (severity=="major")', action='stat()')
addFilter(id='LVMT', filter='contains(det,"MUO") and (devtype=="LVMT")', action='stat()')
addFilter(id='MDT', filter='contains(det,"MUO") and ((devtype=="MDT") or (devtype=="MDC") or contains(devtype, "MFLO"))', action='stat()')
addFilter(id='MTCM', filter='contains(det,"MUO") and (devtype=="MTCM")', action='stat()')
addFilter(id='PDT', filter='contains(det,"MUO") and (devtype=="PDT")', action='stat()')
addFilter(id='SRC', filter='contains(det,"MUO") and ((devtype=="SRC") or (devtype=="SFE"))', action='stat()')
```

- Command lines for example
 - ◆ setup d0online
 - ◆ sesBrowser.py muo.bro ‘2003-05-18 00:00:00’ ‘2003-05-18 18:00:00’ >m.log



“stat()” Action Example

Action Node STAT, filter HV :										
Name	Total	Bad Major	Good Major	Bad Minor	Good Minor	Trans Major	Trans Minor	Bad Inv	Good Inv	
MUOC	22	13	9	0	0	0	0	0	0	
-- HVC	22	13	9	0	0	0	0	0	0	
-- DW05	5	3	2	0	0	0	0	0	0	
-- CURR	4	2	2	0	0	0	0	0	0	
-- VOLT	1	1	0	0	0	0	0	0	0	
-- DW19	5	3	2	0	0	0	0	0	0	
-- CURR	4	2	2	0	0	0	0	0	0	
-- VOLT	1	1	0	0	0	0	0	0	0	
-- DW25	2	1	1	0	0	0	0	0	0	
-- VOLT	2	1	1	0	0	0	0	0	0	
-- DW27	2	1	1	0	0	0	0	0	0	
-- VOLT	2	1	1	0	0	0	0	0	0	
-- DW30	1	1	0	0	0	0	0	0	0	
-- VOLT	1	1	0	0	0	0	0	0	0	
-- DW32	7	4	3	0	0	0	0	0	0	
-- CURR	4	2	2	0	0	0	0	0	0	
-- STATE	2	1	1	0	0	0	0	0	0	
-- VOLT	1	1	0	0	0	0	0	0	0	

